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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)
)
1998 Biennial Regulatory Review -)
Streamlining of Radio Technical Rules in) MM Docket No. 98-93
Parts 73 and 74 of the Commission's Rules)
)

**REPLY COMMENTS OF THE WASHINGTON UNIVERSITY on behalf of
KWUR, CLAYTON, MISSOURI**

These comments are submitted by The Washington University (the "University"), licensee of noncommercial educational FM Station KWUR, Clayton, Missouri, on the above-captioned *Notice of Proposed Rule Making* and are submitted in reply to initial comments filed by various parties in opposition to the Commission's proposed modifications to its policies and rules governing Class D stations.

KWUR is a Class D 10 Watt station broadcasting on Channel 212. It is located in Clayton, Missouri, in suburban St. Louis. KWUR is a student managed station owned and operated by the University.

Currently, the broadcast range of KWUR is not large enough to include all student housing located on the University's approximately 177 acre campus. In addition, the campus of the University is surrounded by residential neighborhoods heavily populated by students, faculty and staff, and only a small portion of these neighborhoods is believed to be within the broadcast range of the station.

For the past decade, the University has explored various options to increase the wattage and broadcast range of KWUR. Due to the saturated broadcast environment of St. Louis, the station has not been able to effect any such increase.

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One of the proposed rule changes would redefine Class D stations based on a predicted 60 dBu contour distance not in excess of five kilometers rather than an output wattage of 10 Watts. The University commissioned Evans Associates to perform an engineering study to assess the impact of the proposed rule revisions on KWUR with a specific focus on the wattage increase available to KWUR under the proposed rules. A copy of the Engineering Statement by Evans Associates is attached hereto and marked Exhibit A. The study concludes that KWUR would be allowed to increase its power to 90 Watts. The University believes that an increase in KWUR's wattage to 90 Watts would more fully allow the broadcast range of the station to include the campus and surrounding area in which its target audience (students, faculty and staff) is primarily located. No other proposals embodied in the FCC *Notice of Proposed Rule Making* would be available to KWUR in its effort to upgrade its facilities.

In 1979, the FCC adopted rules declaring 10 Watt stations to be an "inefficient" use of the spectrum and encouraged such stations either to increase power on their existing channels or to migrate to any available channel on the commercial portion of the FM band.¹ The FCC also refused to license any new Class D stations.² By redefining Class D stations in accordance with the proposed rule, the FCC can allow for more efficient use of the spectrum. Class D stations in the position of KWUR, with no opportunity to increase wattage either on their current frequency or through migration to a different frequency, will be given an opportunity to increase their broadcast range.

¹ See *Second Report and Order*, 69 FCC 2d 240 (1978); *Memorandum Opinion and Order*, 70 FCC 2d 972 (1979).


² See 47 C.F.R. sec. 73.512(c)(1997); *Notice of Proposed Rule Making* in this matter at footnote 109 ("This Notice neither makes nor proposes any change to this permanent freeze policy").

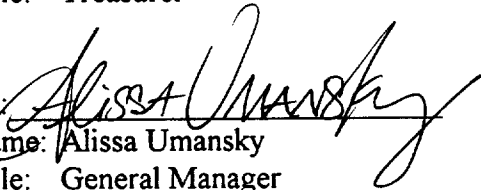
KWUR is an important and valuable component of the educational mission of the University, for both the students who gain valuable communications experience through managing the station, and for members of the listening audience who are kept informed of the programs and activities of the University.

The University believes the proposed rule will further the public interest, for the reasons aforesaid, and urges its adoption, insofar as it pertains to Class D stations.


Respectfully submitted,

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ENGINEERING STATEMENT

This Engineering Statement has been prepared by B. Benjamin Evans, P.E. of Evans Associates, Consulting Communications Engineers in Thiensville, Wisconsin, on behalf of Washington University, licensee of non-commercial Class D station KWUR(FM) in Clayton, Missouri (a suburb of St. Louis). Washington University has retained this firm to study the impact of the new Class D rules proposed in the FCC's Notice of Proposed Rule Making MM Docket No. 98-93, on KWUR.

In MM Docket 98-93, the Commission proposes several revisions to the rules regulating FM Class D stations. The following are the proposed changes that are relevant to KWUR, and their potential impact on the station:

1. "To permit Class D stations to operate on any channel where no interference (as defined by Section 73.509(b)) would be caused to any broadcast station, and to eliminate the requirement that Class D licensees with reserved band authorizations demonstrate the unavailability of any commercial FM channel or Channel 200 in their license renewal applications."

The current requirement that Class D stations migrate to a commercial channel or Channel 200, or demonstrate the unavailability of such channels, has been an obstacle to KWUR in securing a renewal of its license. The elimination of this requirement would relieve KWUR of this unnecessary administrative burden. In any case, the saturated FM broadcast environment of the St. Louis area prevents KWUR from operating on any of these channels without causing prohibited overlap with or destructive interference to at least one other full service FM station.

2. "With regard to Class D stations that are causing or are predicted to cause interference (as defined by Section 73.509(b)) on their current channel, we propose to apply the following standards: first, stations would be required to move to an available interference-free channel; second, if no interference-free channel is available, stations would be required to move to an NCE-FM channel that would result in only second- and/or third-adjacent channel contour overlap; and third, if no channel is available that would be either interference-free or create only second- and/or third-adjacent channel interference, the station would be required to obtain the consent of each affected NCE FM station subject to co- or first-adjacent channel interference as a condition for continued operation."



Currently, KWUR, which operates on Channel 212, has prohibited contour overlap with only one other higher-class NCE-FM station, KWMU on Channel 214C in St. Louis. Presumably, under the Commission's proposed rules, KWUR would fall under the second above category, and could continue operating on their present channel. However, KWUR also overlaps contours with a Class D station, KRHS on Channel 211 in Overland, Missouri; both interference given and interference received are predicted to occur. Presumably, this overlap was grandfathered. The Commission, in its proposed rule making, does not specifically address the problem of existing overlap between Class D stations, but it would be logical to address this problem in the same manner as if the overlap were between higher-class NCE-FM stations; that either Class D station could make modifications as long as the area of overlap is not increased or does not move significantly closer to the station receiving the overlap.

Based on a reserved band frequency search conducted by this engineer on KWUR a few years ago, KWUR's currently authorized Channel 212 is the best channel in terms of Section 73.509(b) of the FCC rules and the selection criteria proposed by the Commission in this rule making.

The Commission has requested comments on whether Class D stations presently causing second or third adjacent channel overlap to an NCE-FM station, as does KWUR, "should be allowed to remain on their present channels absent actual complaints of interference or required to move in accordance with the standards proposed herein." It is the opinion of this engineer that a Class D station which causes such overlap should not be forced off its present channel if there are no complaints of actual interference being caused to the higher-class NCE-FM station. An FM translator in a similar situation is allowed to continue operating as long as it does not cause actual interference to any full service broadcast station. Such flexibility should be extended to Class D stations.

3. "We propose to conform the definition of Class D stations to that of higher class NCE FM stations, by eliminating the TPO restriction and instead defining Class D stations as stations with predicted 60 dBu contour distances not exceeding five kilometers, as determined in accordance with Section 73.211(b)."

This provision, if adopted, in addition to being of significant benefit to Class D stations like KWUR, is long overdue. The unnecessary restriction of 10 watts transmitter power output places a burden on a Class D station that wishes to upgrade, by having to purchase and install a larger higher-gain antenna to increase coverage. Many Class D stations cannot do this because of the cost involved or due to various local antenna restrictions.

FM Class A stations are currently defined as having a predicted 60 dBu contour distance of at least six kilometers. The 10-watt TPO restriction for Class D stations pre-dates this minimum Class A standard. The use of ERP and HAAT to calculate coverage



and interference has made the 10-watt restriction unimportant and unnecessary. Redefining the Class D maximum facilities as those which yield a predicted 60 dBu contour distance of no greater than five kilometers would bring the Class D technical standards in line with those of other FM transmission services.

In the case of KWUR, the new proposed Class D maximum ERP, at KWUR's authorized antenna height of 29 meters HAAT, would be about 90 watts¹. KWUR's present authorized ERP is 9 watts. Under the new proposed Class D standard, KWUR could implement a coverage increase by installing a higher-power transmitter into its unity-gain antenna, rather than installing a larger higher-gain antenna.

The proposed rule making does not specifically propose that a Class D station which causes prohibited contour overlap with a second- or third-adjacent channel NCE-FM station be authorized transmitting facilities up to the proposed Class D maximum; nor does it propose a facilities restriction on such Class D stations. Hopefully, the FCC will address this situation in this proposed rule making. If a coverage increase is permitted for existing Class D stations in this particular situation, this would give KWUR an opportunity to significantly upgrade its signal that did not exist before.

This statement is true and accurate to the best of my knowledge and belief.

B. Benjamin Evans, P.E.
Consulting Engineer

November 2, 1998



¹ A directional antenna would be required so that the present overlap with Class D station KRHS is not increased at the higher ERP.